

J-4 Standard Purchasing Resolutions:

- a) Standard Purchasing Resolution 2: Award to Low Bidder Meeting Specifications – Structural Firefighting Turnout Gear

Resolution #2016-01-168-J-4a
004

RESOLVED, That Troy City Council hereby **APPROVES** a contract to furnish two (2) year requirements for new structural firefighting turnout gear with the option to renew for one (1) additional year to the low bidder meeting specifications; *Apollo Fire Equipment Co. of Romeo, Michigan*, for an estimated total cost of \$112,914.60; at the unit prices contained in the bid tabulation opened December 10, 2015, a copy of which shall be **ATTACHED** to the original Minutes of this meeting; with contract expiring December 30, 2018.

BE IT FURTHER RESOLVED, That the award is **CONTINGENT** upon the contractor's submission of properly executed contract documents, including insurance certificates and all other specified requirements.

PO# 2016-547

PURCHASE ORDER

No. 2016-00000547

DATE: 01/20/2016

PAGE: 1 of 1

FOB DESTINATION

Ship To

CITY OF TROY
Fire
4693 ROCHESTER ROAD
TROY, MI 48085

Bill To

CITY OF TROY
Fire
500 W BIG BEAVER RD
TROY, MI 48084

VENDOR NO. 103512

Vendor

APOLLO FIRE EQUIPMENT
12584 LAKESHORE DR
ROMEO, MI 48065-4417

EXPIRATION DATE

12/30/2017

COUNCIL RESOLUTION

2016-01-168-J-4a

INSTRUCTIONS

Return to Department

QUANTITY	UNIT	DESCRIPTION	UNIT COST	TOTAL COST
60	Each	FIRE DEPARTMENT TURNOUT GEAR Furnish two (2) year requirements for new structural firefighting turnout gear with an option to renew for one (1) additional year. Not to exceed budgetary limitations as per Peter Hullinger, Fire Department, 248.524.3417. See attached (1 page)	1,881.9100	\$112,914.60

Entered By: MaryBeth Murz

\$112,914.60

Special Instructions:

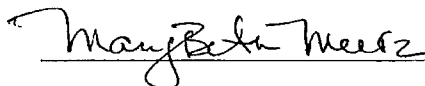
CITY COUNCIL APPROVAL DATE: 01/11/2016. Provide firefighting turnout gear as per ITB-COT 15-38 specifications. Year 1 of potential 3 year contract.

TERMS & CONDITIONS

1. Purchases of Municipalities are exempt from State Sales and Federal Excise Taxes.
2. Prior to acceptance, vendor agrees to provide City with information under the Right-to-Know Law, P.A. 1986, No. 80, and fully comply with all terms and conditions of the Michigan Occupational Safety and Health Act, MCL 408.1001, et seq. including vendor shall provide City with an "MSDS". Vendor also agrees to be responsible for all required labeling.
3. In cases of emergency/disaster, the City can purchase up to six(6) times the order amount for a period of six(6) months at the price contained in the contract.
4. Purchase Orders are signed electronically based upon computer generated "on-line" authorized approvals. Authentic signatures are on file in the City of Troy Purchasing Department.

NOTICE: The City could put the vendor on notice that vendors will be held financially responsible for any claims or awards made against the City as a result of the vendor's action. If the City has to defend the initial lawsuit, the City will bring in the vendor as a co-defendant or sue the vendor, either as the result of settling a claim or the conclusion of the lawsuit.

I HEREBY CERTIFY THAT THIS ORDER IS PROPERLY AUTHORIZED AND APPROVED.



PROPOSAL: Two-year requirements with one (1) two-year renewal option of new structural firefighting turnout gear for the City of Troy Fire Department.

VENDOR NAME:

Apollo Fire Equipment Co.

Romeo, MI

ITEM	EST QTY	DESCRIPTION	Unit Price	Estimated Total
1.	60	COAT:	\$ 1,168.40	\$ 70,104.00
		Make/Model/Manufacturer	CSTM Super Deluxe Coat by Lion Apparel	
2.	60	PANT:	\$ 713.51	\$ 42,810.60
		Make/Model/Manufacturer	PSUM Super Pant by Lion Apparel	
3.	60	SUSPENDERS:	Included	Included
		Make/Model/Manufacturer	SB342 H-Back Suspenders by Lion Apparel	
		TOTAL UNIT PRICE:	\$ 1,881.91	

ESTIMATED TOTAL PRICE:

\$ 112,914.60

AUTHORIZED DEALER:

Y

CONTACT INFORMATION:

Hours of Operation
24 Hr Phone #

M-F 8:00-4:30
810-877-5501

DESCRIPTIVE LITERATURE:

Attached / Marked

Y

#1, #2

EXTENDED TO MITN GROUP:

Y

PAYMENT TERMS:

Net 30 days

WARRANTY:

Standard Manufacturers Warranty

DELIVERY:

Approx. 60 days

EXCEPTIONS:

Commando Coat is no longer offered and has been replaced by the Super Deluxe Coat.

ACKNOWLEDGEMENT:

Signed Y or N

Y

FORMS:

Y or N

Y

PROPOSAL: Two-year requirements with one (1) two-year renewal option of new structural firefighting turnout gear for the City of Troy Fire Department.

VENDOR NAME:			Apollo Fire Equipment Co. Romeo, MI		Douglass Safety Systems Sanford, MI	
ITEM	EST QTY	DESCRIPTION	Unit Price	Estimated Total	Unit Price	Estimated Total
1.	60	COAT:	\$ 1,168.40	\$ 70,104.00	\$ 1,423.53	\$ 85,411.80
		Make/Model/Manufacturer	CSTM Super Deluxe Coat by Lion Apparel		S25 Viper Honeywell	
2.	60	PANT:	\$ 713.51	\$ 42,810.60	\$ 912.93	\$ 54,775.80
		Make/Model/Manufacturer	PSUM Super Pant by Lion Apparel		S36 Viper Honeywell	
3.	60	SUSPENDERS:	Included	Included	Included	Included
		Make/Model/Manufacturer	SB342 H-Back Suspenders by Lion Apparel		Blank	
		TOTAL UNIT PRICE:	\$ 1,881.91		\$ 2,336.46	
ESTIMATED TOTAL PRICE:			\$ 112,914.60		\$ 140,187.60	
AUTHORIZED DEALER:			Y		Y	
CONTACT INFORMATION:						
		Hours of Operation	M-F 8:00-4:30		8a-5p M-F	
		24 Hr Phone #	810-877-5501		989-687-7600	
DESCRIPTIVE LITERATURE:			Y		Y	
		Attached / Marked	#1, #2		Literature	
EXTENDED TO MITN GROUP:			Y		Y	
PAYMENT TERMS:			Net 30 days		Net 30 days	
WARRANTY:			Standard Manufacturers Warranty		Lifetime from Manufacturer Defect	
DELIVERY:			Approx. 60 days		60 days	
EXCEPTIONS:			Commando Coat is no longer offered and has been replaced by the Super Deluxe Coat.		Will take a couple exceptions due to the spec being manufacturer specific. Our gear meets and exceeds the specs listed.	
ACKNOWLEDGEMENT: Signed Y or N			Y		Y	
FORMS: Y or N			Y		Y	

ATTEST:

Sara Teets

Susan Riesterer

Peter Hullinger

MaryBeth Murz

MaryBeth Murz,
Purchasing Manager



November 23 2015
Addendum 1
ITB-COT 15-38
Turnout Gear – Fire Department
Page 1 of 4

To All Bidders:

Please be advised that Purchasing Department for the City of Troy has authorized the following clarification(s) and or change(s) to for ITB-COT 15-38, TURNOUT GEAR. The clarification(s) and or change(s) will be considered an integral part of the original proposal document

CHANGES TO THE BID ARE AS FOLLOWS:

The section labeled "FITTINGS" is hereby changed

FROM

FITTINGS:

The successful vendor shall provide to the Fire Department a "Sizing Kit" consisting of a complete set of turn out gear in various sizes to be used to determine accurate sizes for turn out gear to be ordered. The Sizing Kit shall remain in possession of the Fire Department for the life of the contract.

TO:

FITTINGS:

The successful vendor shall provide to the Fire Department a "Sizing Kit" consisting of a complete set of turn out gear in various sizes to be used to determine accurate sizes for turn out gear to be ordered. The Sizing Kit shall be made available upon request by the Fire Department for a period of thirty (30) days after which it will be returned to the vendor

The section labeled "STRUCTURAL FIREGIGHTING TURNOUT GEAR SPECIFICATIONS" has been updated. The specifications attached to this addendum are what shall be used by vendors in response to this invitation for bid. (16 pages attached)

I, the undersigned bidder, have read this Addendum 1 and have integrated the clarification(s) and or change(s) into the *Bid Proposal and Specifications* for ITB-COT 15-38, TURNOUT GEAR – FIRE DEPARTMENT. ALL other items in the original bid proposal remain the same. **This Addendum 1 should be attached to the top of the Bid Proposal packet at the time of submission, on or before Thursday, December 10, 2015 at 10:00 AM EST in the office of the City Clerk.**

COMPANY: APOLLO FIRE EQUIPMENT CO.

NAME OF AUTHORIZED COMPANY REPRESENTATIVE: DAVE DUDDLES

SIGNATURE: _____

ADDRESS: 12584 LAKESHORE DR.

ROMEO, MI 48065

DATE: DECEMBER 8, 2015



**CITY OF TROY
BID PROPOSAL**

ITB-COT 15-38
Page 1 of 4

The undersigned proposes to furnish **TWO-YEAR REQUIREMENTS OF NEW STRUCTURAL FIREFIGHTING TURNOUT GEAR FOR THE TROY FIRE DEPARTMENT, WITH ONE (1) TWO-YEAR RENEWAL OPTION**, in accordance with the attached specifications which are to be considered an integral part of this proposal, at the following prices:

COMPANY NAME: APOLLO FIRE EQUIPMENT CO.

PROPOSAL: FURNISH NEW STRUCTURAL FIREFIGHTING TURNOUT GEAR – In accordance with the bid specifications.

<u>ITEM #</u>	<u>EST. QTY</u>	<u>DESCRIPTION</u>	<u>UNIT PRICE</u>	<u>ESIMTATED TOTAL PRICE</u>
1)	60	Coat: CSTM SUPER DELUXE COAT BY LION APPAREL Make / Model / Manufacturer:	<u>\$1,168.40</u>	<u>\$ 70,104.00</u>
2)	60	Pant: PSUM SUPER PANT BY LION APPAREL Make / Model / Manufacturer:	<u>\$ 713.51</u>	<u>\$ 42,810.60</u>
3)	60	Suspenders: SB342 H-BACK SUSPENDERS BY LION APPAREL Make / Model / Manufacturer:	<u>\$ INCLUDED</u>	<u>\$ INCLUDED</u>
GRAND TOTAL FOR ALL ITEMS:			<u>\$ 112,914.60</u>	

NOTE: Unit price includes all delivery costs, handling, packaging, and service charges.

(NOTE: THE SPECIFICATION SHEETS MUST BE COMPLETED AND RETURNED WITH THE BID PROPOSAL)

UNIT PRICES:

Unit Prices prevail. The City of Troy Purchasing Department will correct all extension errors.

AUTHORIZED DEALER:

- (X) Our company is an authorized distributor of this turnout gear
() Our company is not an authorized distributor of this turnout gear.

CONTACT INFORMATION:

Hours of operation: M-F 8:00-4:30 Contact Phone No. 810-877-5501

ESTIMATED QUANTITIES:

Quantities stated are estimated and not guaranteed, but will be used for award purposes. The City of Troy will not be penalized for ordering more than the stated quantities. Equipment will be purchased periodically throughout the life of the contract as needed.

APOLLO

FIRE EQUIPMENT COMPANY

PRICE QUOTATION

12584 LAKESHORE DRIVE

ROMEO, MI 48065

PHONE (810) 877-5501

WATTS 1- 800-626-7783

FAX (586) 752-6907

David Duddles

email: dduddles@apollofire.com

TO	City of Troy, MI	DATE	12/10/2015	TERMS	30 days net
		PROPOSED SHIPPING DATE		TBD	
	2 Year renewal	4 TO BE SHIPPED VIA		Fed Ex	
	Bid Proposal ITB-COT 15 38	QUOTE VALID FOR		until 12/10/2015	

	Due to uncertainty of furture price increases from product manufacture, pricing for the 2 year renewal will be 44% off list prices in effect for 12/10/2017-2019		
	Hanging coat pocket option (10x8x1.5) SBP616 PER COAT		\$10.00
	Full below pant pocket option per pair FBP603		\$4.00
	shipping		n/c
	Sales tax exempt		

THANK YOU FOR YOUR BUSINESS

TOTAL

David Duddles

DESCRIPTIVE LITERATURE:

Please attach descriptive or pertinent literature relevant to your company's bid proposal at the time of bid submission. It is attached and marked #1, #2 for identification.

ADDITIONAL INFORMATION:

For questions about the specifications, please contact Mr. **Peter Hullinger**, Fire Technician, (248) 524-3417 between the hours of 8:00 AM and 4:30 PM, Monday through Thursday.

CONTRACT FORMS:

Bidders should complete the Legal Status of Bidder, Non-Collusion Affidavit, Certification regarding Debarment and the Certification regarding "Iran Linked Business" forms and return with your bid proposal.

DELIVERY:

All items are to be F.O.B. delivered, freight paid, to the City of Troy Department of Public Works, 4693 Rochester Rd, Troy, MI 48085, Attn: Fire Department/Peter Hullinger.

DOWN-PAYMENTS OR PREPAYMENTS:

Any bid proposal submitted which requires a down-payment or prepayment prior to delivery and full acceptance of the item(s) as being in conformance with specifications will not be considered for award.

AWARD:

Award of this bid shall be a combination of factors including, but not limited to the following: Fit with respect to the specifications, bid price, warranty, and the correlation of the proposal submitted to the needs of the City of Troy. The City of Troy reserves the right to award this bid to the lowest responsible bidder meeting specifications; to reject low bids which have major deviations from the specifications; to accept a higher bid which has only minor deviations.

PURCHASE ORDER:

After approval of the successful bidder by the Troy City Council, the purchase order issued from the City of Troy will create a bilateral contract between the parties and commit the successful bidder to perform the contract in accordance with specifications. A contract document/ agreement will not be issued.

APPROVED ALTERNATES:

The designated department representative or his/her designee will review all items submitted for consideration as an approved alternate. Their decision as to acceptability will be deemed in the City of Troy's best interest and will be final. Descriptive literature with detailed specifications must be included with your bid submission.

FITTINGS:

The successful vendor shall provide to the Fire Department a "Sizing Kit" consisting of a complete set of turn out gear in various sizes to be used to determine accurate sizes for turn out gear to be ordered. The Sizing Kit shall remain in possession of the Fire Department for the life of the contract.

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

EXTENSION OF AWARD TO THE MITN (MICHIGAN INTER-GOVERNMENTAL TRADE NETWORK) PURCHASING COOPERATIVE:

OPTIONAL:

Numerous Counties, Cities, Townships, and Authorities of the State of Michigan are members of the MITN (Michigan Inter-governmental Trade Network) Purchasing Cooperative. Other associate entities are also members of the Cooperative in the Tri-County area. Please visit www.mitn.info website to view the entire list of participating agencies.

If your company is awarded the item(s) referenced in the bid proposal, other cooperative governmental entities may wish to use this contract and will issue a purchase order for the item(s) awarded in the bid proposal following minimum order requirements set forth below. Each entity will provide their own purchase order and delivery location(s) and must be invoiced separately to the address indicated on their purchase order.

- (X) If an award is made to TROY FIRE DEPT., it is agreed that the contract will be extended to other MITN Purchasing Cooperative members and associate entities under the same prices, terms, and conditions.
- () Our company is **NOT** interested in extending the contract MITN members listed on the website

REFERENCES:

Please submit a list of THREE (3) CUSTOMERS who have ordered similar product from your company in the last five (5) years. Include the name of the company, the address, phone number, contact person, and email:

COMPANY: BLOOMFIELD TWP. FIRE DEPT.
ADDRESS: 4200 TELEGRAPH RD. BLOOMFIELD HILLS, MI 48303
PHONE: 248-433-7745 **CONTACT:** JOHN LEROY
EMAIL: jleroy@bloomfieldtwp.org

COMPANY: BURTON FIRE DEPT.
ADDRESS: 4090 MANOR DR. BURTON, MI 48519
PHONE: 810-742-2158 **CONTACT:** KIRK WILKINSON
EMAIL: bfdcaptkirk@aol.com

COMPANY: NOVI FIRE DEPT.
ADDRESS: 42975 GRAND RIVER AVE. NOVI, MI 48375
PHONE: 248-735-5673 **CONTACT:** RAMON ALVAREZ
EMAIL: ralvarez@cityofnovi.org

COMMERICAL WARRANTY/MANUFACTURER'S RECOMMENDATIONS:

The bidder agrees that supplies or services furnished shall be covered by the most favorable commercial warranties the bidder gives to any customer for such supplies or services. All warranty information and certificates shall be furnished and become the property of the City upon delivery of said items and all rights and remedies stated in the warranties must be honored by the contractor or his manufacturer. All items are new manufacture unless otherwise specifically stated or called for in the bid. All products offered must have passed the first line quality standards as set by the manufacturer and no seconds, blemished articles, or items containing defective workmanship are included. Vendor shall include with sealed bid a copy of the detailed warranty information for all products offered in response to the invitation to bid. Bidder shall include with sealed bid a copy of the detailed warranty information for all products offered in response to the invitation to bid.

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

SIGNATURE PAGE

PRICES:

Prices shall remain firm for 60 days or bid award whichever comes first, except the successful bidder whose prices shall remain firm for the entire contract period. Should the City at its sole discretion decide to exercise the renewal option the successful vendor may submit a request to increase pricing. Increases shall not exceed 5% of the prices in effect at the time of contract award for each item. A request for price increases shall be submitted in writing by the vendor at least 30 days prior to contract expiration.

SIGNATURE OF AUTHORIZED COMPANY REPRESENTATIVE: 

NOTE:

The undersigned has checked carefully the bid figures and understands that he/she shall be responsible for any error or omission in this bid offer and is in receipt of all addenda as issued.

TAX ID#: 38-2415038

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

ADDRESS 12584 LAKESHORE DR CITY ROMEO STATE MI ZIP 48065

PHONE NUMBER 586-752-1800 FAX NUMBER 586-752-6907

REPRESENTATIVE'S NAME DAVE DUDDLES
(Print)

SIGNATURE OF AUTHORIZED COMPANY REPRESENTATIVE: _____

PAYMENT TERMS: NET 30 DAYS WARRANTY: STANDARD MANUFACTURERS WARRANTY

E-MAIL: apollo@apollofire.com DELIVERY: APPROX. 60 DAYS

EXCEPTIONS:

Any exceptions, substitutions, deviations, etc., from the City specifications and this proposal must be stated below. The reason(s) for the exceptions, substitutions, and/or deviations are an integral part of this bid proposal offer:

COMMUNDA CONT IS NO LONGER OFFERED AND HAS BEEN REPLACED BY THE SUPER DELUXE CONT

ACKNOWLEDGEMENT:

I, DAVE DUDDLES, certify that I have read the *Instructions to Bidders* (2 Pages) and that the bid proposal documents contained herein were obtained directly from the City's Purchasing Department or MITN website, www.mitn.info and is an official copy of the Authorized Version.

SIGNATURE OF AUTHORIZED COMPANY REPRESENTATIVE: 

IMPORTANT: All City of Troy purchases require a MATERIAL SAFETY DATA SHEET, where applicable, in compliance with the MIOSHA "Right to Know" Law. Please include a copy of any relevant MSDS at the time of bid submission.

U.S. FUNDS: All prices quoted are to be in U.S. Currency.

G: Bid ITB-COT 15-38 Turnout Gear - Fire.doc



Legal Status of Bidder:

The Bidder shall fill out the appropriate form and strike out the other two:

A ~~corporation~~ duly organized and doing business under the laws of the State of MICHIGAN for
whom DAVE DUDDLES, bearing the office title of SALES REPRESENTATIVE, whose
signature is affixed to this proposal, is duly authorized to execute contracts.

~~Partnership~~, all members of which, with addresses, is:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

~~XXXXXXXXXX~~
AN INDIVIDUAL, WHOSE SIGNATURE IS AFFIXED TO THE PROPOSAL:

_____	_____
-------	-------



CITY OF TROY
OAKLAND COUNTY, MICHIGAN
NON-COLLUSION AFFIDAVIT

TO WHOM IT MAY CONCERN:

DAVE DUDDLES, being duly sworn deposed, says that he/she
(Print Full Name)

is SALES REPRESENTATIVE. The party making the foregoing proposal or bid,
(State Official Capacity in Firm)

that such bid is genuine and not collusion or sham; that said bidder has not colluded, conspired, connived, or agree, directly or indirectly, with any bidder or person, to put in a sham bid or to refrain from bidding and has not in any manner directly or indirectly sought by agreement or collusion, or communication or conference, with any person to fix the bid price or affiant or any other bidder, or to fix any overhead, profit, or cost element of said bid price, or that of any other bidder, or to secure the advantage against the City of Troy or any person interested in the proposed contract; and that all statements contained in said proposal or bid are true.

SIGNATURE OF PERSON SUBMITTING BID

NOTARY'S SIGNATURE

Subscribed and sworn to before me this 8 day of December,

2015 in and for Genesee County.

My commission expires:

4/17/2020

NANCY J. HUDAK
NOTARY PUBLIC, STATE OF MI
COUNTY OF GENESSEE
MY COMMISSION EXPIRES 4/17, 2020
ACTING IN COUNTY OF

Genesee



**CERTIFICATION REGARDING
DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS**

The prospective participant certifies, to the best of its knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, and declared ineligible, or voluntarily excluded from participation in transactions under any non-procurement programs by any federal, state or local agency.
2. Have not, within the three year period preceding, had one or more public transactions (federal, state, or local) terminated for cause or default; and
3. Are not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) and have not, within the three year period preceding the proposal, been convicted of or had a civil judgment rendered against it:
 - a. For the commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction (federal, state, or local), or a procurement contract under such a public transaction;
 - b. For the violation of federal, or state antitrust statutes, including those proscribing price fixing between competitors, the allocation of customers between competitors, or bid rigging; or
 - c. For the commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

I understand that a false statement on this certification may be grounds for the rejection of this proposal or the termination of the award. In addition, the general grant of this authority exists within the City's Charter, Chapter 12, Section 12.2- Contracts.

☒ **I am able to certify to the above statements.**

APOLLO FIRE EQUIPMENT COMPANY

Name of Agency/Company/Firm (Please Print)

DAVE DUDDLES, SALES REPRESENTATIVE

Name and title of authorized representative (Please Print)



Signature of authorized representative

DECEMBER 8, 2015

Date

☐ **I am unable to certify to the above statements. Attached is my explanation.**



**VENDOR CERTIFICATION
THAT IT IS NOT AN
"IRAN LINKED BUSINESS"**

Pursuant to Michigan law, (the Iran Economic Sanctions Act, 2012 PA 517, MCL 129.311 et seq.), before accepting any bid or proposal, or entering into any contract for goods or services with any prospective Vendor, the Vendor must first certify that it is not an "IRAN LINKED BUSINESS", as defined by law.

Vendor	
Legal Name	APOLLO FIRE EQUIPMENT COMPANY
Street Address	12584 LAKESHORE DR.
City	ROMEO
State, Zip	MI 48065
Corporate I.D. Number/State	MICHIGAN 38-2415038
Taxpayer I.D. #	38-2415038

The undersigned, with: 1.) full knowledge of all of Vendors business activities, 2.) full knowledge of the requirements and possible penalties under the law MCL 129.311 et seq. and 3.) the full and complete authority to make this certification on behalf of the Vendor, by his/her signature below, certifies that: the Vendor is NOT an "IRAN LINKED BUSINESS" as required by MCL 129.311 et seq., and as such that Vendor is legally eligible to submit a bid and be considered for a possible contract to supply goods and/or services to the City of Troy.

Signature of Vendor's Authorized Agent:

Printed Name of Vendor's Authorized Agent: DAVE DUDDLES

Witness Signature:

Printed Name of Witness: PAULETTE LEAN

G:\BldLanguage_IranLinkedBusiness

**CITY OF TROY
STRUCTURAL FIREFIGHTING TURNOUT GEAR
SPECIFICATIONS
PAGE 1 OF 16**

GENERAL:

Each bidder shall return the completed Bid Proposal and Specification pages with their bid submission. All gear must meet or exceed the requirements listed below. An acceptable manufacturer is Janesville turnouts. The City holds sole discretion whether a product meets the minimum requirements. Peter Hullinger, Fire Technician, will be the contact for this project. All equipment is to be F.O.B. delivered freight paid, City of Troy Department of Public Works, Attn: Fire Department/Peter Hullinger 4693 Rochester Road, Troy, MI 48065.

VENDOR SHOULD INDICATE UNDER EACH ITEM, WHETHER HE / SHE MEETS THE REQUIRED SPECIFICATIONS BY CIRCLING "YES" OR "NO". IF AN ITEM IS MARKED WITH A "NO" AN EXPLANATION SHALL BE PROVIDED. **A BLANK ITEM WILL BE INTERPRETED TO MEAN THAT THE VENDOR DOES NOT MEET SPECIFICATIONS AND THE CITY MAY DISQUALIFY THE VENDOR'S BID PROPOSAL FROM FURTHER CONSIDERATION.**

IMPORTANT: *The City of Troy reserves the right to disqualify any bidder who indicates that the GEAR under consideration meets any listed specification and it is determined that the gear clearly does not meet specifications.*

Protective Clothing Specifications

Meets Requirements?

Scope

☒ Yes ☐ No

The purpose of the clothing is to provide protection during structural fire fighting operations where there is a threat of fire or when certain physical hazards are likely to be encountered, such as during non-fire-related rescue operations, emergency medical operations, and victim extrication.

EXCEPTIONS TO SPECIFICATIONS

Standard

☒ Yes ☐ No

All garments produced shall meet or exceed the criteria set forth in the current edition of NFPA 1971 PROTECTIVE CLOTHING FOR STRUCTURAL FIRE FIGHTING, FED-OSHA CFR 1910, Subpart L, OSHA 29 CFR Part 1910.1030 and/or the requirements of CAL-OSHA title 8, Article 10.1, Para. 3406.

All components and composites used in the construction of garments shall be third party tested, certified and listed for compliance to NFPA 1971. The label of the third party tester shall denote certification.

The manufacturer shall be registered to the ISO Standard 9001 to assure a satisfactory level of quality.

EXCEPTIONS TO SPECIFICATIONS

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Protective Clothing Specifications (Continued)

Meets Requirements?

User Guide Information

Yes No

Each garment shall include a User Information Guide with information required by NFPA 1971.

This guide shall include:

- (a) Pre-use information:
 - Safety considerations.
 - Limitations of use.
 - Garment marking recommendations and restrictions.
 - A statement that most performance properties of the garment cannot be tested by the user in the field.
 - Warranty information.
- (b) Preparation for use:
 - Sizing/adjustment.
 - Recommended storage practices
- (c) Inspection:
 - Inspection frequency and details.
- (d) Don/Doff:
 - Donning and doffing procedures.
 - Sizing and adjustment procedures.
 - Interface issues.
- (e) Use:
 - Proper use consistent with NFPA 1500, Standard on Fire Department, Occupational Safety and Health Program, and 29 CFR 1910, 132.
- (f) Maintenance and Cleaning:
 - Cleaning instructions and precautions with a statement advising users not to use garments that are not thoroughly cleaned and dried.
 - Inspection details.
 - Maintenance criteria and methods of repair where applicable.
 - Decontamination procedures for both chemical and biological contamination.
- (g) Retirement and Disposal
 - Retirement and disposal criteria and considerations.
- (h) Drag Rescue Device (DRD)
 - Use, inspection, maintenance, cleaning and retirement of the DRD.

EXCEPTIONS TO SPECIFICATIONS

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Protective Clothing Specifications (Continued)

Meets Requirements?

Tracking Label System

☒ Yes ☐ No

There shall be a PDF417, two dimensional bar code label permanently affixed to each garment for tracking purposes. The bar code shall contain a minimum of the following information:

- a. unique serial number
- b. item description (brand, model, material color)
- c. lot information (date of mfg., size, etc.)
- d. material description
- e. the standard to which the garment is compliant

The bar code shall be able to withstand customary wash and wear cycles. The PDF417 bar code must incorporate a minimum of a 30% "error correction" capability.

EXCEPTIONS TO SPECIFICATIONS

Sizes

☒ Yes ☐ No

Coats shall be made available in even chest sizes with corresponding sleeve lengths available in short, regular, and long. Pant sizes shall be made available in even waist sizes with inseam lengths available in extra short, short, regular, and long. Male and female sizing available.

EXCEPTIONS TO SPECIFICATIONS

Warranty

☒ Yes ☐ No

Each garment shall have a limited lifetime warranty against defects in material and workmanship.

EXCEPTIONS TO SPECIFICATIONS

Composite Performance

☒ Yes ☐ No

The garment composite, consisting of the outer shell, moisture barrier and thermal liner, shall provide a Thermal Protective Performance (TPP) of not less than 35 when tested in accordance with NFPA 1971 standard.

The garment composite, consisting of the outer shell, moisture barrier and thermal liner, shall provide a Total Heat Loss (THL) of not less than 205 when tested in accordance with NFPA 1971 standard.

The Heat Transfer Index rating shall be 25 seconds for the shoulder when measured at 2 psi (pounds per square inch) and 25 seconds for the knee when measured at 8 psi.

EXCEPTIONS TO SPECIFICATIONS

Stress Points

☒ Yes ☐ No

All outer shell stress points, including top and bottom pocket corners, pocket flap corners, top and bottom of storm flap/fly shall be reinforced using a 42 stitch minimum bar tack.

EXCEPTIONS TO SPECIFICATIONS

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Protective Clothing Specifications (Continued)

Meets Requirements?

Labeling

☒ Yes ☐ No

Each garment shall have a garment label(s) permanently and conspicuously attached stating at least the following language, as well as detailed warning instructions provided by the manufacturer.

Do Not Remove This Label

**THIS GARMENT MEETS THE GARMENT REQUIREMENTS OF NFPA 1971,
STANDARD ON PROTECTIVE ENSEMBLE FOR STRUCTURAL FIRE FIGHTING,
2007 EDITION**

MADE IN THE U.S.A.

EXCEPTIONS TO SPECIFICATIONS

Detailed Description / Specifications

Meets Requirements?

Commando™ Coat

Coat Model / Design

☒ Yes ☐ No

COAT CONSTRUCTION: The coat shall be designed of a 3-panel construction in all layers to provide a proper fit. Sleeves shall be of full length and of shoulder insert, 2-panel type design.

BELLOWS UNDERARMS: Bellows underarm construction shall be used in all layers of the coat-outer shell/moisture barrier/thermal liner-ensuring maximum upper body freedom of movement including complete arm mobility when reaching up and/or forward. Bellows construction shall extend to all inner layers of the coat making it possible for the fit and freedom of movement, derived from the outer shell bellows construction, to be passed through the inner layers to the wearer's body.

The outer shell/moisture barrier/thermal liner bellows shoulder construction shall consist of an underarm and shoulder bellows of elongated football shape not less than 8" wide by not less than 15" long sewn into each of the coats fabric layers by two-needle construction. The bellows in each layer shall begin at a point corresponding to the front of the armpit, wrap around under the arm and shoulder joint, and terminate at the rear top of the shoulder.

FREEDOM ELBOW: The sleeve shall have an insert throughout all layers that shall provide a natural bend in the sleeve. This insert shall be set in the back of each sleeve and shall be a shortened football shape, 6" wide in the middle and 3" wide at the seams.

When measured at the center of the back from the collar seam to the hem bottom, the coat shall measure 32" long.

EXCEPTIONS TO SPECIFICATIONS

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Detailed Description / Specifications (Continued)

Meets Requirements?

Drag Rescue Device

☒ Yes ☐ No

The Fire Fighter Recovery Harness™ shall be constructed of a one and one-half inch wide KEVLAR® strap that shall be installed between the outer shell and the thermal liner. This harness shall have a hand loop (16" in circumference) that exits the outer shell through a 2" polymer coated aramid reinforced slot on the back of the coat just below the collar and is held in place by means of a piece of 1.5" x 2" hook on the strap and a piece of 1" x 2" loop attached to the outer shell. This strap is then secured under a 2.25" x 5.25" flap that is sewn in at the neck /collar area. Two pieces 1" x 2" loop shall be set vertically on shell to align with two pieces of 1" x 2" hook set vertically to the underside of the flap. The harness is also held in proper alignment by means of a 2" x 2" piece of loop placed on the inside of the outer shell underneath the chest trim that corresponds to a piece of 1.5" x 2" hook located on the harness. Two 1" x 3.5" self-fabric straps with 1" x 2" hook on one end and 1" x 2" loop on other end shall be set to coat in the shoulder cap area to keep straps in proper position for use.

Fire Fighter Recovery Harness™ provides mechanical leverage for dragging a downed and incapacitated structural firefighter from a life-threatening environment. The design of the harness enables the rescuer to drag the downed firefighter in line with the axis of the firefighter's skeletal frame, in order to decrease the risk of further injury.

EXCEPTIONS TO SPECIFICATIONS

Coat Outer Shell Material

☒ Yes ☐ No

The outer shell shall be constructed of +/-7.25 oz./sq. yd. 40% PBI®/60% KEVLAR® highly constructed ripstop weave with extremely durable FPE water resistant Teflon® FPE alloy reinforced with a matrix of 600 denier filament Kevlar® cables. Color shall be natural (gold).

EXCEPTIONS TO SPECIFICATIONS

Coat Liner & Moisture Barrier

☒ Yes ☐ No

THERMAL LINER: 3.5oz./sq. yd. Glide™ (NOMEX® filament/spun) face cloth quilted to 1 layer E-89™ spunlace aramid 85%/Nomex/15% KEVLAR® weighing approximately 2.3 oz./sq. yd. with a Teflon® finish, and 1 layer of apertured (11-13) apertures/sq. inch) E-89™ spunlace aramid 85%/Nomex/15% KEVLAR® weighing approximately 1.5 oz./sq. yd. with Teflon finish (total weight +/- 7.3 oz./sq. yd.).

MOISTURE BARRIER: NOMEX® substrate laminated to a lightweight breathable, CROSSTECH® (Type 2C), Teflon membrane; weighing 5.0 oz./sq. yd.

The liner shall have one 8.5" x 8.5" internal pocket which shall be made of black outer shell material. The liner pocket shall be located on the left side of coat liner.

Quilt Thermal Liner Construction: The moisture barrier shall be completely sewn to the thermal liner at its perimeter with the breathable membrane oriented inward toward the thermal liner and away from the outer shell. All moisture barrier seams shall be sealed as required by NFPA 1971. The moisture barrier/thermal liner shall finish no more than 1" from the cuffs and 3" from the hem.

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Detailed Description / Specifications (Continued)

Meets Requirements?

Coat Liner & Moisture Barrier (Continued)

MOISTURE BARRIER/THERMAL LINER ATTACHMENT: Completely Removable: The moisture barrier/thermal liner shall be completely detachable from the outer shell for ease of cleaning by the use of hook and loop, zippers, and snaps. There shall be a brass zipper down each front facing, hook and loop along the neck to interface with collar as well as hook and loop and one snap at each sleeve end.

All moisture barrier seams shall be sealed as required by NFPA 1971.

EXCEPTIONS TO SPECIFICATIONS

Reflective Trim

☒ Yes ☐ No

All trim shall be sewn with four (4) rows lockstitch 301, minimum (6) stitches/inch for most secure trim attachment.

All trim shall be: 3" Scotchlite™ II (triple trim) of lime/yellow

Coat trim shall be applied as follows: High Visibility Pattern: (1) 3" strip shall be set full circumference at the bottom sweep of the outer shell; (1) 3" strip shall be set around each sleeve approximately 2" from bottom of sleeve cuff; (1) 3" strip shall be set around each sleeve just above the elbow; (1) 3" strip shall be set full circumference at the chest; (2) 3" strips shall be set vertically on the back of the coat forming a box with the upper back strip and sweep strip.

EXCEPTIONS TO SPECIFICATIONS

Coat Collar

☒ Yes ☐ No

MOISTURE BARRIER/THERMAL LINER CONSTRUCTION: Design shall be compatible with the outer shell so that the liner does not buckle, pull, or otherwise restrict body motion. The left and right fronts of the moisture barrier/thermal liner shall be attached to the facings at the front closure of the outer shell. The neck of the moisture barrier/thermal liner shall be secured to the neck of the outer shell collar such that when donning the coat an arm may not be accidentally caught between the outer shell and its inner linings along the neck between the armholes. Liner shall have a 2" wide, 2-ply CROSSTECH®/NOMEX® pajama check extension sewn the full length of the neck. FR loop, 3/4" wide, shall be sewn on extension to tuck into pleat in outer shell collar.

COLLAR: The collar shall be of three piece contoured 4-layer configuration such that when the collar is raised it shall remain standing while providing continuous thermal and moisture protection around the neck and face. To ensure this protection, the two layers of outer shell collar shall be fully lined with one layer of Gore RT7100™ PTFE moisture barrier material and two layers of 1.5 oz. apertured E-89™ thermal liner. The collar shall provide proper interface with liner to insure no moisture penetration through the collar seam to inside of coat.

The collar shall be contoured and shall completely cover the neck and throat area when in the raised position. Raised height shall be approximately three inches with a contoured overlap at the front of the coat. Collar closure shall be provided by FR hook and loop 1.5" x 4", with hook portion sewn on right side of collar, and loop portion sewn on left, set horizontal. Collar shall be of such design so as not to interfere with SCBA face masks, nor helmet.

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Detailed Description / Specifications (Continued)

Meets Requirements?

Coat Collar (Continued)

When examined prior to donning, the turned up collar shall completely wrap around the front of the neck opening such that left and right collars touch or overlap to maximize facial protection.

The three piece contoured 4-layer collar shall be sewn with a pleat on the innermost layer. Pleat shall have 3/4" FR hook sewn on the underside to engage the moisture barrier extension on the liner.

EXCEPTIONS TO SPECIFICATIONS

Hanger Loop

☒ Yes ☐ No

An external hanger loop constructed of a double layer of outer shell material and reinforced with two 42-stitch bartacks shall be provided on the outside of the coat at the collar seam. It shall be designed to provide long service and shall not tear or separate from the coat when the coat is hung by the hanger loop, loaded evenly with a weight of 80 lbs. and allowed to hang for one minute.

EXCEPTIONS TO SPECIFICATIONS

Coat Inner Yoke Reinforcement

☒ Yes ☐ No

A layer of Semper Dri™ (3.0 oz./sq. yd. Teflon® treated Chambray (NOMEX® spun) face cloth quilted to arafla/E-89™ (Total weight +/- 6.0-6.8 oz./sq. yd)) shall be positioned between the moisture barrier and thermal liner for extra thermal protection in a high heat and compression area of the coat. It shall be sewn to the inside of the upper back portion of the thermal liner across the upper back from the back shoulder and collar seams 7" down, over the tops of shoulders and down the front approximately 4" ending at the armhole.

EXCEPTIONS TO SPECIFICATIONS

Coat Shoulder Reinforcement

☒ Yes ☐ No

A 4" wide area at the top of the shoulders extending 6" from the collar seam shall be capped with outershell material for abrasion resistance and thermal protection. For additional thermal protection and cushioning, one layer of uninterrupted 1/8" thick, fire retardant closed-cell foam shall be oriented between the outer shell and the shoulder cap reinforcement.

EXCEPTIONS TO SPECIFICATIONS

Coat Elbow Reinforcement

☒ Yes ☐ No

The elbow shall be reinforced with self fabric for abrasion resistance and thermal protection. In addition to reinforcement, elbows shall be padded using one layer of uninterrupted 1/8" thick, fire retardant closed-cell foam. The reinforcement material shall be oriented between the outer shell and elbow insert reinforcement.

EXCEPTIONS TO SPECIFICATIONS

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Detailed Description / Specifications (Continued)

Meets Requirements?

Coat Cuff Reinforcement

☒ Yes ☐ No

The cuff of the sleeve shall be reinforced with a binding of outer shell material not less than 3" in total width for abrasion resistance and thermal protection. At least 2" of the cuff reinforcement shall extend down the interior of the outer shell sleeve with a .75" wide strip of FR hook sewn full circumference to the topside of the cuff reinforcement. For added safety, (1) female snap fastener shall be set in the hook fastener to assist in attaching outer shell to moisture barrier/thermal liner

EXCEPTIONS TO SPECIFICATIONS

Coat Wristlets

☒ Yes ☐ No

An internal wristlet shall consist of a 2-ply knit of 48% NOMEX®/48% KEVLAR® and 4% Spandex for superior recovery. Wristlet to be combination of natural and bronze colors produced by DuPont, and with extremely durable Teflon® water resistant alloy not less than 8" extending completely over the palm with a thumbhole preventing the wristlet from sliding back. Wristlets shall be double stitched and bound to the moisture barrier/thermal liner providing extended thermal and slash protection.

EXCEPTIONS TO SPECIFICATIONS

Waterwells – Ever-Dri

☒ Yes ☐ No

A combination Semper Dri™ (3.0 oz./sq. yd. Teflon® treated Chambray (NOMEX® spun) face cloth quilted to one layer E-89™ spunlace aramid 85%NOMEX®/15% KEVLAR® weighing approximately 2.3 oz./sq. yd. with a Teflon® finish and one layer of apertured (11-13 apertures/sq. inch) E-89™ spunlace aramid 85% NOMEX®/15% KEVLAR® weighing approximately 1.5 oz./sq. yd. with a Teflon® finish (total weight +/- 6.8 oz./sq. yd.)) / (1) layer of breathable CROSSTECH® (Type 2C) moisture barrier leader shall be sewn no more than 1" back from the combination liner sleeve end to form a sleeve well. One male snap and one .75"wide strip of FR loop shall be sewn full circumference to the end of the thermal liner/CROSSTECH® (Type 2C) moisture barrier leader to help secure the combination liner to the outer shell. This sleeve well shall prevent water and hazardous materials from entering the sleeve when arms are in a raised position.

The combination liner sleeve ends shall be inserted into the outer shell sleeve ends by means of lining up the male snap then attaching the FR loop fastener of the combination liner sleeve end with the female snap and FR hook fastener of the outer shell cuff. This method of combination liner attachment shall prevent any gaps from occurring between the combination liner and sleeve well during a full range of motion. The combination liner shall extend to within 1" of the sleeve end.

EXCEPTIONS TO SPECIFICATIONS

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Detailed Description / Specifications (Continued)

Meets Requirements?

Coat Closure System

Yes ☒ No

THERMAL FRONT PANEL CONSTRUCTION: There shall be continuous thermal and moisture protection around the entire torso including the storm flap. To ensure this protection, as well as reduce potential for wicking moisture to inside of liner, both right and left inside front facings of the coat outer shell shall incorporate outer shell fabric and Gore RT7100™ PTFE moisture barrier, extending from collar to hem.

COAT FRONT CLOSURE DESIGN: The complete outer shell coat front closure design shall consist of a FRONT CLOSURE SYSTEM completely protected by an OUTSIDE STORM FLAP which shall have its own, independent STORM FLAP CLOSURE SYSTEM.

STORM FLAP: A storm flap measuring not less than 3" wide, nor less than 22" in length shall be set on the outside of the right side of the coat opening for maximum thermal protection and clear drainage. The inner lining of the storm flap shall be Gore RT7100 PTFE moisture barrier meeting all requirements for moisture barriers sandwiched between two (2) layers of outer shell fabric.

FRONT/STORM FLAP CLOSURES: The front closure shall consist of a #9 brass zipper such that fast closure and exit is possible yet the coat remains securely closed while working. The storm flap closure shall consist of 1.5" wide FR hook and loop attachments with FR hook fastener sewn on the left front of the coat, and corresponding FR loop fastener sewn on the inner side of the outer storm flap. The hook and loop closure shall extend the full length of the outer storm flap eliminating all exposed frontal hardware. The front closure shall consist of 1.5" hook and loop attachments which shall be sewn into the coat overlap, along the leading edge of the left and right sides of the coat.

EXCEPTIONS TO SPECIFICATIONS

COAT POCKETS

Coat pocket specifications listed below:

Turn-Out Pockets

Yes ☒ No

8" wide x 8" deep outside full bellows pockets that expand by means of side and bottom gussets to a thickness of 2" in front and back.

Pockets shall be reinforced with self-fabric 5" up outside on pocket.

Pocket and flap shall be set with stitch 301, seam Ssb-2 with the top and bottom pocket corners and top corners of flap reinforced with bar tacks for additional strength. Drainage of moisture to be provided by brass eyelets.

Pocket flaps shall be 9" x 5".

A hook and loop fastener closure system shall be set with 1.5" x 8" loop fastener horizontally on the pocket and (3) pieces of 1.5" x 3" hook fastener vertically on the underside of the flap.

Item Location for Above

Yes ☒ No

Shall be located on left and right of the front bottom.

EXCEPTIONS TO SPECIFICATIONS

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Detailed Description / Specifications (Continued)

Meets Requirements?

Turn-Out Pockets (Continued)

Yes / No

One 3.5" wide x 9" deep full bellows radio pocket that expands by means of side and front gussets to a thickness of 2" in front and back.

Pocket and flap shall be set with stitch 301, seam Ssb-2 with the top and bottom pocket corners and top corners of flap reinforced with a minimum 42-stitch bar tack. A brass eyelet shall provide drainage of moisture.

Pocket flaps shall be 4.5"x 5".

Pocket shall be fully lined all 3 sides inside pocket with polycotton lining.

Pocket flap shall close to the pocket top using 1 piece of 1"x 2" loop on pocket horizontally and 1 piece of 1"x 2" hook on flap vertically.

Pocket flap shall include a notch on the flap to accomodate an antenna.

Item Location for Above

Yes / No

Shall be located on the left side of the chest.

EXCEPTIONS TO SPECIFICATIONS

Mic Tab

Yes / No

There shall be a 1" X 3" triple layer self -fabric mic tab attached with bar tacks on each side. Bar tacks shall be a minimum 42-stitch bar tack

Item Location for Above

Yes / No

Shall be located on the left chest above radio pocket

EXCEPTIONS TO SPECIFICATIONS

Flashlight Strap

Yes / No

There shall be a 1" x 2" two- layer self fabric 703 flashlite snap holder with 2 bartacks.

Item Location for Above Yes No

Shall be located on right Chest 4" above the FLS558.

Flashlight Strap

Yes / No

2"x10" self fabric strap x-stitched at the center shall close around the flashlight with 1 piece of 2" x 3" hook fastener on one end and 1 piece of 2" x 3" loop on the other.

Item Location for Above Yes No

Shall be located on right Chest 4" below the FLS510.

EXCEPTIONS TO SPECIFICATIONS

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Detailed Description / Specifications (Continued)

Meets Requirements?

Lettering Patches

☒ Yes ☐ No

There shall be one 5"x18" contoured 2-layer self-fabric one-line Letter Patch attached to hang from back hem.

EXCEPTIONS TO SPECIFICATIONS

Lettering Patch Attachment

☒ Yes ☐ No

Hook & loop shall be used to attach patch to coat.

Lettering Patch Attachment

☒ Yes ☐ No

LETTER PATCH ATTACHMENT: There shall be one male snap at each top corner of hanging letter patch (total of two male snaps) and two female logo snaps on the inside of the shell to align with the male snaps.

EXCEPTIONS TO SPECIFICATIONS

Sewn On Lettering

☒ Yes ☐ No

There shall be 3" lime yellow Scotchlite letters, sewn-on.

EXCEPTIONS TO SPECIFICATIONS

Lettering

☒ Yes ☐ No

Lettering shall be FF NAME.

Location for Lettering

☒ Yes ☐ No

Shall be on a patch

EXCEPTIONS TO SPECIFICATIONS

Liner Inspection System

☒ Yes ☐ No

COAT LINER INSPECTION SYSTEM: There shall be an opening located on the coat liner approximately 11" in length at the center back of the neck separating the thermal barrier and moisture barrier. This opening will provide the ability to completely invert the coat liner to properly view the integrity of the entire liner system. There shall be one piece .75"x 4" FR loop sewn to the back side of the liner system with a corresponding piece of .75"x 4" FR hook sewn to the inside of the outer shell to ensure proper alignment when installing the liner system into the outer shell. This Liner Inspection System is completely hidden when the liner is properly installed into the outer shell.

EXCEPTIONS TO SPECIFICATIONS

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Detailed Description / Specifications (Continued)

Meets Requirements?

Janesville® Super Pant™

Pant Model / Design

☒ Yes ☐ No

PANT CONSTRUCTION: The pant shall be no more than 1" higher in the front than a standard bunker pant with a gradual increase to 2" higher than a standard bunker pant in the rear.

RADIAL INSEAM BAND: The pant inseam shall incorporate a comfort/mobility design in all layers. The banded pant insert shall run continuously from the top of the mobile knee of one leg, through the crotch, to the top of the mobile knee of the opposite leg. This design eliminates crotch seams therefore eliminating crotch seam failure. This design also provides a more comfortable fit and increased mobility while decreasing bunching of materials.

FREEDOM KNEE: The knee shall incorporate a comfort/mobility design in all layers. This design shall allow for a natural bending motion of the knee. The apex of the knee shall allow for not less than a 1.5" bellows at the center. The radial seam shall provide a gusset that the knee can fall into when crawling, climbing, bending, kneeling, etc... The bottom of the mobile knee shall be placed not less than 10" from the cuff to fall anatomically correct.

WAISTBAND: The waist of the pants shall be reinforced on the inside with two-ply of outer shell fabric material not less than 1.5" in width. The pant waist shall be turned under to provide double material strength with the independent waistband, which shall then be double stitched to the outer shell.

EXCEPTIONS TO SPECIFICATIONS

Pant Outer Shell Material

☒ Yes ☐ No

The outer shell shall be constructed of +/- 7.25 oz./sq. yd. 40% PBI®/60% KEVLAR® highly constructed ripstop weave with extremely durable FPE water resistant Teflon® FPE alloy reinforced with a matrix of 600 denier filament Kevlar® cables. Color shall be natural (gold).

THERMAL LINER: 3.5 oz./sq. yd. Glide™ (NOMEX® filament/spun) face cloth quilted to 1 layer E-89™ spunlace aramid 85%Nomex/15% KEVLAR® weighing approximately 2.3 oz./sq. yd. with a Teflon® finish, and 1 layer of apertured (11-13 apertures/sq. inch) E-89™ spunlace aramid 85% Nomex/15% Kevlar weighing approximately 1.5 oz./sq. yd. with a Teflon finish (total weight +/- 7.3 oz./sq. yd.).

MOISTURE BARRIER: NOMEX® substrate laminated to a lightweight breathable, CROSSTECH® (Type 2C), Teflon membrane; weighing 5.0 oz./sq. yd.

MOISTURE BARRIER/THERMAL LINER CONSTRUCTION: Design shall be compatible with the outer shell so that the liner does not buckle, pull, or otherwise restrict body motion. To deter the wicking of moisture up the thermal liner leg the bottom nine inches of each thermal leg shall be constructed of Semper Dri (3.0 oz./sq. yd. Teflon® treated Chambray (NOMEX® spun) face cloth quilted to one layer E-89™ spunlace aramid 85%NOMEX®/15% KEVLAR® weighing approximately 2.3 oz./sq. yd. with a Teflon® finish and one layer of apertured (11-13 apertures/sq. inch) E-89™ spunlace aramid 85% NOMEX®/15% KEVLAR® weighing approximately 1.5 oz./sq. yd. with a Teflon® finish. (Total weight +/- 6.8 oz./sq. yd.)). The waist of the moisture barrier/thermal liner shall be secured to the waist of the outer shell such that when donning the pant a leg may not be accidentally caught between the outer shell and its inner linings along the waist and between the legs of the pant.

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Detailed Description / Specifications (Continued)

Meets Requirements?

Pant Outer Shell Material (Continued)

Quilt Thermal Liner Construction: The moisture barrier shall be completely sewn to the thermal liner at its perimeter with the breathable membrane oriented inward toward the thermal liner and away from the outer shell. The moisture barrier/thermal liner shall finish no more than 3" from the cuffs.

MOISTURE BARRIER/THERMAL LINER ATTACHMENT: The moisture barrier/thermal liner shall be completely detachable from the outer shell for ease of cleaning by using snaps. Nine evenly spaced snaps shall secure the liner to the integral waistband; Two snaps shall be set in leather leg tabs at each leg end.

All moisture barrier seams shall be sealed as required by NFPA 1971.

EXCEPTIONS TO SPECIFICATIONS

Reflective Trim

☒ Yes ☐ No

All trim shall be sewn with four (4) rows lockstitch 301, minimum (6) stitches/inch for most secure trim attachment. All trim shall be: 3" Scotchlite™ II(triple trim) lime/yellow. Pant trim shall be applied as follows: (1) strip set full circumference around the bottom of the cuff 3" from the bottom cuff. 2nd row of trim to be placed 3" above cuff trim or below knees.

EXCEPTIONS TO SPECIFICATIONS

Pant Fly Closure

☒ Yes ☐ No

STORM FLY/CLOSURE: The outer shell shall have an overlapping fly front running the full length of the fly on the left side. The flap shall not be less than 2.5" wide at the waistband. The bottom of the fly shall be reinforced with a 42 stitch bartack.

The storm fly shall be held closed along its length by means of a hook and loop fastener closure 1.5" minimum width, along the leading edge for a distance of not less than 6" from the bottom of the fly closure to the waist area for proper alignment and secure closure. Additionally, (1) snap shall be positioned at the inside top of the fly. Pant closure shall be provided by #9 brass zipper.

The storm fly shall be outer shell material, lined with a 3.5" strip of CROSSTECH® (Type 2C) moisture barrier material to prevent wicking.

THERMAL FLY ASSEMBLY: The moisture barrier/thermal liner shall be constructed with an extension on the left side at the waist of all layers of the fly opening to assure continuous thermal and moisture protection. This overlap shall be positioned between the layers of the outside storm fly. A 3/4" wide x 9" long hook fastener shall be sewn to the moisture barrier/thermal liner to engage corresponding loop fastener on the underside of the outside storm fly.

EXCEPTIONS TO SPECIFICATIONS

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Detailed Description / Specifications (Continued)

Meets Requirements?

Take Up Straps

☒ Yes ☐ No

One adjustment device shall be affixed to the outside on each side of the pant. Each take-up strap shall be comprised of two sub-component straps. The front strap shall be 1" wide x 5" in length, folded in half to form a loop, and shall be affixed to the side of the pant by means of two bar tacks spaced 2" apart. The loop shall face toward the back and hold a nickel plated 1" metal loop. The back strap shall be 1" wide x 9" in length of double layered outer shell material and hook and loop fastener. The rear 4.5" shall be sewn and triple bartacked to the shell. The front section of the strap shall remain loose and be aligned so that it is threaded through the metal loop. It shall have a piece of 1" x 3" hook fastener attached to the loose strap end to engage the corresponding 1" x 4.5" loop fastener at end of strap to allow for adjustment.

EXCEPTIONS TO SPECIFICATIONS

Pant Knee Reinforcement

☒ Yes ☐ No

The knee shall be split cowhide leather (gold) material and measure 9" across the bottom, not less than 7" on the sides and gradually increase to 12" at the center point at the apex. For added thermal protection, an additional layer of 1/8" thick, fire resistant closed-cell foam shall be positioned between the moisture barrier and thermal liner.

EXCEPTIONS TO SPECIFICATIONS

Pant Cuff Reinforcement

☒ Yes ☐ No

The cuff area of the pant shall be reinforced with a binding of gold split cowhide leather not less than 2" in total width for greater strength, abrasion resistance, and thermal protection. In addition a 3" x 3 1/2" piece of reinforcement material shall be sewn on the inseam area of the pant leg above the pant cuff and below the pant trim, in order to provide extra abrasion protection. The material used on the kick shield shall match the material used on the pants cuffs.

EXCEPTIONS TO SPECIFICATIONS

Leg Tabs

☒ Yes ☐ No

2 Leather leg tabs 3/4" wide x 1 3/4" long with female snaps. Bartacked 2" up from bottom edge on inside. (1 on inseam 1 on outseam)

EXCEPTIONS TO SPECIFICATIONS

Liner Inspection System

☒ Yes ☐ No

PANT LINER INSPECTION SYSTEM: There shall be an opening located on the pant liner system to the right side of the waist separating the thermal barrier and moisture barrier, approximately 10" in length. This opening will provide the ability to completely invert the pant liner to properly view the integrity of the entire liner system. There shall be a piece of 1" x 3" FR loop sewn to the moisture barrier 3" over from beginning of opening and a corresponding piece of 1" x 3" FR hook sewn to the inside of the outer shell to ensure proper alignment when installing the liner system into the outer shell. This Liner Inspection System is completely hidden when the liner is properly installed into the outer shell.

EXCEPTIONS TO SPECIFICATIONS

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Detailed Description / Specifications (Continued)

Meets Requirements?

Belts and Harnesses

☒ Yes ☐ No

LUMBAR SUPPORT: Each pant shall have a lumbar support system integrated into the pant. This device shall provide mechanical support for the back by generating intra-abdominal pressure without increasing abdominal muscle activity. Components of the lumbar support system include a 6" x 8" orthopedic, non-absorbent, fire retardant, closed-cell foam pad, elastic webbing, metal adjusters, and pull tabs.

The lumbar support system shall be oriented between the outer shell and liner. Each pant front shall have two tunnel openings reinforced with polymer coated aramid welts, for durability, spaced 7" apart on the front of the pant. Pull tabs, shall be constructed of black split cowhide leather, 1.5" wide x 5.5" long shall be sewn to two straps of 2" wide elastic webbing on each side of the pant. Elastic webbing shall be secured to center rear of pant. When the lumbar support system is deactivated, pull tabs shall be visible on the front of pants. 1.5" wide x 5.5" long loop fastener shall be sewn on the underside of each pull tab to engage the system.

The right elastic straps shall each have a 2" wide x 5" long loop fastener sewn on the underside, while the left elastic straps shall each have a 2" wide x 5" long hook fastener sewn on top for engaging the system. The left side of the pant outer shell shall have 1.5" wide x 3" long hook fastener for storage of pull tab and to help engage system. The right side of pant shall have 1.5" wide x 3" long hook fastener for storage of pull tab and to assist in engaging the system. The foam pad shall have one 4" wide x 5" long strip of hook fastener to engage two 2" wide x 7" long strips of loop fastener sewn to the rear of the pant to secure pad in place. The inside of the outer shell is reinforced with a piece of KEVLAR® twill 10" wide by 7" high.

EXCEPTIONS TO SPECIFICATIONS

Pant Pockets

Pant pocket specifications listed below

Turn-Out Pockets

☒ Yes ☐ No

10" wide x 10" deep outside full bellows pockets that expand by means of side and bottom gussets to a thickness of 2" in front and back. Pocket shall be split 6" front and 4" back inside pocket with a KEVLAR® twill divider.

Pockets shall be reinforced with Kevlar® twill fully lined 3 sides inside pocket & 3" up on shell.

Pockets and flaps shall be set with stitch 301, seam Ssb-2 with the top and bottom pocket corners and top corners of flap reinforced with bar tacks for additional strength. Drainage of moisture to be provided by brass eyelets.

Pocket flaps shall be 11"x 5".

A hook and loop fastener closure system shall be set with 1.5"x 8" loop fastener horizontally on the pocket and (2) pieces of 1.5" x 2.75" hook fastener set vertically on the underside of the flap.

Item Location for Above

☒ Yes ☐ No

Shall be located on each thigh.

EXCEPTIONS TO SPECIFICATIONS

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY

Detailed Description / Specifications (Continued)

Meets Requirements?

Suspenders

☒ Yes ☐ No

SCOPE

A highly engineered 42" black suspender designed for greater range of mobility and reduced stress allowing for eight points of attachment to a traditional or contoured waist bunker pant with traditional suspender buttons.

DESIGN

Two 8" front pull straps shall be constructed as follows: 2" wide non-elastic polyester webbing shall be fed through 2" metal loops and secured with a two-needle lock-stitch at one end. A black military finish steel double dee ring shall be fed through the webbing. The other end of the webbing shall be fed through a 2" wide thermo-plastic dee ring and secured with a two-needle lock-stitch. The dee ring shall function as a pull strap for easily adjusting the suspenders for proper fit.

Two 18" shoulder straps shall be constructed as follows: 2" wide non-elastic polyester webbing shall be fed through the top half of the steel double dee ring and secured with a two-needle lock-stitch. Two 7" back straps made of 2" wide elastic webbing shall be joined with a 2" overlap at the end of each shoulder strap with a single-needle lock stitch. The end of each back strap shall be fed through a 2" metal loop and secured with a two-needle lock stitch.

One 2 1/2" horizontal back strap made of 2" wide elastic webbing shall be set perpendicular between the two shoulder straps and back straps at the point of overlap, secured with a single-needle lock-stitch, and reinforced with a two-needle lock-stitch "X" through the joining straps.

Four pieces of 2" wide elastic webbing shall feed through the 2" metal loops at each end of the front and back straps and be secured to 2" buttonhole peerless loops constructed of .080 diameter wire with a zinc plate finish. This will allow for eight points of attachment. Each piece of webbing shall be long enough so that when fed through the 2" metal loop and folded over, shall measure at least 2" long on each side. Each peerless loop shall be configured such that they easily rotate around a suspender button to allow for freedom of motion.

Each shoulder strap shall be encapsulated with a 2.25" wide x 13" long sheath of padding constructed of 1/8" thick fire-retardant closed-cell foam laminated to Nomex pajama check substrate. Shoulder pads shall start 1" up from the cross point of the horizontal back strap ("H" cross) and be bartacked at each end so they do not slide forward. Each shoulder pad shall have an embroidered Lion Head Logo.

EXCEPTIONS TO SPECIFICATIONS

COMPANY NAME: APOLLO FIRE EQUIPMENT COMPANY



7200 Poe Ave, Suite 400
Dayton, OH. 45414

Phn 800-421-2926
Fax 877-803-1032

ON BEHALF:

Apollo Fire Equipment Company

FOR:

Troy Fire Dept

Description	MFGR Part #
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Custom Turnout Coat - 2015

Coat Model / Design

**Super-Deluxe™
Coat**

LION® Turnout Super-Deluxe™, Traditional Coat with Freedom design.
Fully featured coat with Bi-swing Back for forward mobility.

Coat Model / Design

CSTM-32

32" Male Super Deluxe™ Coat

Coat Liner & Moisture Barrier

K7 - Traditional

Traditional Liner, Glide™ face cloth quilted to 2.3 oz NOMEX®/Kevlar® spunlace & 1.5 oz AraFlo® Dri, CROSSTECH® BLACK (Type 2F)
PTFE/Nomex® Pajama Check laminated membrane

Coat Shell Attachment

CSA706

1x3" Self-fabric strap w/ 1 end sewn to coat shell & opposite end loose w/
1 female non-logo snap, 1 male snap on liner centered at bottom rear
panel to align w/ the female snap.

Coat Inner Yoke Reinforcement

LYR224

(Std) Semper Dri® front and back yokes sewn to coat thermal liners.
(RM1377-059) (Super Deluxe, Liberty)

Coat Water Well

CLW207

(Std) Water Well: Chambray DWR 2 layer AraFlo® NOMEX®/Kevlar® spunlace quilt/pajama check crosstech waterwell with 3/4" loop, male snap, sew to coat liner sleeves.

Coat Wristlets

CLW753

(Std) 8" isodri® over the hand- KEVLAR® / NOMEX® / Spandex® construction

Coat Outer Shell Material

**7oz PBI® Max
Natural**

PBI® Max, 7.0 oz., Natural Color

Reflective Trim

CT901RPY

Apollo Custom Yellow Diamond Reflexite Ventilated Triple Trim Part:
CTCH8RP3Y, CTSL5RP3Y, CTC3RP3Y, CTH5RP3Y, CTB22RP3Y - For
Super Deluxe, Liberty, and Traditional Coats

Drag Rescue Device**BHS020**

(Std) DRD: Firefighter Recovery Harness with 2" welt and 5.25x2.25" flap with rounded corners. 1 piece 1x2" loop for harness storage. 2 pieces 1x2" loop on shell flap closure, 2 pieces 1x2" hook on flap. 1 piece 1.5x2" hook on harness. 1 piece 2x2" loop underneath chest trim for harness storage, 1 pair 1x3.5" self-fabric straps with 1x2" hook and loop. The loop handle shall have a silver retro-reflective LION logo patch.

Take Up Straps**TUP507**

1 Pair 1x6" self fabric take up straps with 1x2" hook and 1x4" loop. 1x2.5 short straps with nickle loop.

Coat Collar**CR237**

(Std) 3" split self fabric collar with CROSSTECH® PJ lined. 2 pieces 1x3" hook on each end inside and two pieces 1" hook set 1/2" from center along top edge for liner attachment. 1.5x4" hook&loop for front closure.

Collar Flashing**CLF221**

(Std) 3" Self fabric, PJ CROSSTECH lined split collar with 2 pieces 1x3" loop on moisture barrier, 2 pieces 1" loop set 1/2" from center along top edge for attachment to shell. Use with CR236 & CR237

Liner Inspection System**CLO210**

(Std) Coat liner inspection system located at center left front of liner, with 1x9" loop. For regular coats.

MISC. Fasteners**MF030**

(Std) 1x9" hook sewn to left front shell for the Coat Liner Inspection System

Coat Cuff Reinforcement**CC702-GLD**

Gold Polymer coated aramid cuff reinforcements

Coat Elbow Reinforcement**BE701**

Self material bellow elbow w/ Lite-N-Dri™ foam padding & outershell reinforcement inside of sleeve next to user's body.

Coat Shoulder Reinforcement**SC711**

Self fabric shoulder caps w/ GIC E-88 foam padding

Coat Closure System**SF262**

(Std) 3" Stormflap w/ 2 layer self fabric & Gore RT7100 PTFE, thermo plastic zipper in, 1.5" hook & 1.5" loop out, (zipper in, hook on coat front, loop on stormflap).

Coat Pockets

Turn-Out Pockets**FBP546**

(2) 8x8x2" Full Bellow pocket w/ self fabric 5" up outside on pocket, 1 pc 1.5" x 8" loop on pocket, 3 pcs. 1.5" x 3" hook on flap, boxed flap.

Item Location for Above

Front bottom- Left & Right

Turn-Out Pockets**RP511**

3.5x9x2" Radio pocket with polycotton fully lined all 3 sides inside pocket, 1pc. 1x2" loop on pocket & 1pc. 1x3.5" hook on flap set 1.25" from serged end of flap. Antenna notch on flap.

Item Location for Above

Chest Left

Flashlight Strap**FLS510**

1x2" 2 layer self fabric 703 flashlite snap holder with 2 bartacks

Item Location for Above

Right Chest 4" above the FLS558

Flashlight Strap**FLS558**

2x10" self fabric strap with 1 piece 2x3" hook on one end & 1 piece 2x3" loop on the other end, strap to be X-stitched to shell & bartacked in all 4 corners of X-stitch.

Item Location for Above

Right Chest 4" below the FLS510

Sewn On Lettering**LTRP3YNS**

Sewn On 3" Lime/Yellow Reflexite® Diamond Plated Letters (each line) 6
- 12 Alpha Numeric Name Characters

Lettering

Lettering shall be TROY FD

Location for Lettering

Across yoke

Lettering Patches**LP34**

5x18" contoured 2 layer self fabric one line letter patch to be attached to hem of coat.

Lettering Patch Attachment**LPV13**

(For LP34): There shall be 1.5x18" hook sewn to top edge of 5x18" patch and 1.5x18" loop sewn with white thread through the trim to coat back inside at hem.

Lettering Patch Attachment**LPS6**

(Snaps Only): 1 male snap at top corners of letter patch & 2 female logo snaps on inside of shell to align with the male snaps = 2 male & 2 female nonlogo snaps.

Sewn On Lettering**LTRP2YNS**

Sewn On 2" Lime Yellow Reflexite® Diamond Plated Letters (each line) 6
- 12 Alpha Numeric Name Characters

Lettering

Lettering shall be FF name

Location for Lettering

On above patch

Mic Tab**MT503**

1x3" triple layer self fabric mic tab bartacked each end.

Item Location for Above

Left Chest above Radio Pocket

Hanger Loop**HL02**

(Std) 5/8" x 5 1/2" Self fabric hangerloop.

Optional pocket in place of FBP546 (additional cost) Must specify on orders if wanted.

Turn-Out Pockets**SBP616**

10x8x1.5" hanging semi bellow pocket with KEVLAR® twill fully lined all 4 sides inside pocket. 2 pieces 2x3" loop on pocket & 2 pieces 2x3" hook on flap. Pocket will be placed to hang 3" below hem. 3.5" x 11" flap

Note: Hanging pockets are not to be used on coats that are longer than 32" in length.

Item Location for Above

Front bottom- Left & Right

Custom Turnout Pants - 2015

Pant Model / Design**PSUM/F**

LION® Turnout Super Pant™, Contoured high waist for increased comfort includes freedom design.

Pant Liner & Moisture Barrier**K7 - Traditional**

Traditional Liner, Glide™ face cloth quilted to 2.3 oz NOMEX®/Kevlar® spunlace & 1.5 oz AraFlo® Dri, CROSSTECH® BLACK (Type 2F) PTFE/Nomex® Pajama Check laminated membrane

Liner Inspection System**PLO200**

(Std) Pant liner inspection system with 1x3" loop located at right side of liner waist.

MISC. Fasteners**MF018**

(Std) 1.5x3" hook sewn to right shell front for the pant liner inspection system.

Pant Outer Shell Material**7oz PBI® Max
Natural**

PBI® Max, 7.0 oz., Natural Color

Belts and Harnesses**BHS009**

Lumbar support system with 7x10" KEVLAR® twill reinforcement and lumbar warranty hangtag.

Pant Fly Closure**FLY230A**

(Std) Pant fly w/ PJ Ctech, closure thermo plastic zipper inside w/ 1.5" hook & loop, 3/4" hook underneath PJ Crosstech for liner attachment.

Take Up Straps	TUP700A
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Outer shell material take-up straps (2) with FR hook & loop closure and one nickel loop

Leg Tabs	LGT000-GLD
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(Std) 2 Gold Leather leg tabs per leg with non-logo female snaps.

Pant Knee Reinforcement	KP644-GLD
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(Std) Gold Leather w/ 1 layer of Lite-N-Dri™ cushioning in shell

Pant Cuff Reinforcement	PC504-GLD
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Gold Poly-coated aramid pant cuffs and 3x3.5" kick shield.

Pant Pockets

Turn-Out Pockets	BDP560
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(2) 10x10x2" Split bellow pocket with KEVLAR® twill fully lined 3 sides inside pocket & 3" up on shell 1pc. 1.5x8" loop on pocket & 2 pcs. 1.5x2.75" hook on flap.

Item Location for Above

Thigh - Left and Right

Boot Cut	PMO542
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"Boot cut" pant legs.

Reflective Trim	PTC4RP3Y
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3" Yellow Diamond Reflexite Ventilated Reflective trim around leg bottoms- 4 rows lockstitch.

Suspenders	SB342=01
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42" (Regular) EZH H-Back Quick Adjust Non-Stretch Suspenders w/ wire clip, Black; APPLIES TO ALL AVAILABLE LENGTHS.

Optional pocket in place of BDP560 (additional cost) Must specify on orders if wanted.

Turn-Out Pockets	FBP603
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10x10x2" Full bellow pocket w/ KEVLAR® twill fully lined 3 sides inside pocket & 3" up on shell, 1 pc. 1.5" x 8" loop on pocket & 2 pcs. 1.5" x 2.75" hook on flap.

Item Location for Above

Thigh Right